

Pro Modified 2012

DESIGNATION: PM or Pro Modified followed by car number. Numbers must be at least 4" tall and on both side windows, upper left of rear window and upper right of windshield.

FIELD: 8 car qualified field

MINIMUM WEIGHT: 2425 pounds for Nitrous cars, 2650 pounds for Turbocharged and Supercharged entries.

MAXIMUM CUBIC INCH ENGINE DISPLACEMENT: 526 cubic inch maximum for Supercharged cars, 540 cubic inch maximum for Turbocharged entries and unlimited cubic inches for Nitrous powered entries.

All rules subject to change at the sole discretion of the ADRL Technical Services Department.

REQUIREMENTS AND SPECIFICATIONS

BODY

APPEARANCE: All vehicles must be professionally finished, painted, lettered, numbered and decaled.

BALLAST: Permitted. Any ballast mounted on, or in front of, forward crossmember is limited to 30 pounds maximum, including bracket. Maximum length of bracket 12 inches, measured from the front of the crossmember. Maximum distance from front motor plate to front of bracket is 36 inches. Bracket may be constructed of either minimum 1 1/4-inch x .058-inch wall round chromoly tubing with minimum four (4) 3/8-inch-diameter SAE Grade 8 bolts for attachment, or of minimum 1/4-inch 6061 T6 aluminum plate with minimum four (4) 1/2-inch SAE Grade 8 bolts for attachment. Other designs for mounting weight forward of front crossmember must be ADRL accepted prior to use. All other weight bars, pucks, etc. must use minimum 1/2-inch-diameter SAE Grade 8 bolts for attachment.

BODY: Funny car or one piece bodies not allowed even if equipped with doors. Maximum front end overhang of 45" as measured from centerline of front spindles. An ADRL accepted extension may be used to reach 45" if the front end overhang of the body is less than 45". All bodies must originate from a production vehicle. All new cars must be accepted by the ADRL competition department prior to construction.

DOORS: Required. Doors must be functional and able to be opened from both the inside and outside of the vehicle. Doors may be fabricated from carbon fiber, fiberglass or metal. A metal deflector between the fenders and the leading edge of the doors is required.

FIREWALL: Magnesium, aluminum or composite not allowed. All firewalls must be made of steel or titanium (.024 minimum thickness).

FLOORS: Replacing stock floors with .024" steel, .032" aluminum allowed. Driver's side floor pan must be .024" steel and must be welded in place extending from firewall to back of driver's seat.

HOOD SCOOP: Allowed. Must be finished and painted to follow the bodies paint scheme

TAIL LIGHT: Functional rear tail light is required. Tail light must be permanently mounted and controlled from the driver's compartment.

WHEELWELLS: Rear wheelwells must be separate for each tire. Maximum height of rear wheel tubs from ground, 40 inches.

WINDOWS AND WINDSHIELD: Required. May be replaced 1/8 inch thick lexan, plexiglass or other shatterproof material. An opening with a 4" diameter minimum is required on side windows adjacent to the driver.

CHASSIS

BATTERY: Maximum of two batteries allowed. All batteries must be securely fastened. Batteries (including battery box) must weigh less than 100 lbs. An external master electrical shut off clearly labeled "PUSH OFF" is required.

BRAKES: Four wheel brakes with dual master cylinder mounted above frame rails required. Application of brakes must be a function of the driver. Carbon fiber rotors and carbon fiber specific brake pads required on rear wheels. Steel brake lines required and must be routed away from the flywheel and driveline area. One line-loc system with one activation source permitted on front wheels only.

CHASSIS: Current SFI 25.1 E or 25.2 certification required.

DRIVER LOCATION: Must be in stock location, on left side of vehicle.

GROUND CLEARANCE: Minimum of 3" required from whatever portion of the vehicles body or chassis that breaks staging beam to 12" behind front axle centerline.

STEERING: SFI 42.1 steering wheel disconnect required with a minimum wheel diameter of 11".

SUSPENSION: Race car type suspension required. Solid suspension prohibited. Shock absorbers required for all four wheels. Lockup shocks prohibited. Active suspension of any kind prohibited. Any ability to make on-track setting/rate changes based on "real time" data or input from any source is prohibited. Electrically or pneumatically controlled, hydraulic shocks and/or struts are permitted, provided all adjustment settings/changes are preset before the run. Only 1 three-wire shielded cable connection is permitted from the top of the shock/strut to the shock/strut controller. Electrical connections of any other kind to or from the shock/strut prohibited. Shock/strut travel sensors permitted, but may ONLY be connected to the vehicle data recorder. Shock/strut control boxes that have connections for travel sensors must have the pin removed from the connector. Connection to serial port on control box prohibited once car reaches the ready line. All wiring must be visible and easily traceable.

TIRES: Automotive type tires designed specifically for racing required. Tires cannot be located outside of bodyline. Manufacturer, model and size information must be clearly designated. Maximum height of front tire is 25 inches.

WHEEL BASE: Minimum 100", Maximum 115". S-10, Ranger, Dakota Maximum 125". Full size trucks Maximum 140". Maximum variation is 2" side to side.

WHEELIE BARS: Required, maximum 104" measured from rear end centerline to center of wheelie bar wheel. nonmetallic wheels required.

WHEELS: Wheels meeting SFI spec 15.1 or 15.3 mandatory. Maximum width 16". Use of a liner mandatory on all non bead lock wheels.

DRIVELINE AND ENGINE

CLUTCH/FLYWHEEL: Flywheel and clutch meeting SFI 1.3, 1.4, or 1.5 certification required. Three discs maximum with a maximum disc diameter of 11 inches or four discs maximum with a maximum disc diameter of 8 inches. Flywheel shield meeting SFI Spec 6.2 or 6.3 required. Maximum depth of flywheel shield: 9.400 inches. Clutch must be manually operated by driver's foot: Electronics, pneumatics, hydraulics, or any other device may in no way affect the clutch system. Throwout bearing must release all fingers, levers, stages, etc. simultaneously. Staged or variable release clutches of any description prohibited.

CYLINDER HEADS: Hemi, canted-valve, or wedge heads permitted. Billet heads permitted. Maximum one spark plug per cylinder. Maximum supercharged valve sizes: intake 2.400 inches; exhaust 1.900 inches.

ENGINE: Internal-combustion, reciprocating, single-camshaft, 90-degree V-8 automotive-type engine. Bore Spacing is set to a MAXIMUM of 5.300" for Nitrous Cars, 5.000" for turbo cars, 4.900" for Billet Hemi head supercharged vehicles and 5.000" for all other supercharged combinations.

DRIVELINE: A full 360 degree drive shaft tube is required over yoke, extended a minimum of 12" required from transmission tail shaft. Minimum thickness of tube housing is .050" chromemoly or titanium. Two piece units accepted with a minimum of 6 3/8" grade 8 bolts. SFI 43.1 Driveshaft required.

ENGINE CONTAINMENT SYSTEM: SFI 7.1 lower engine containment system required. If a flexible 7.1 system is utilized, it must be accompanied by a carbon fiber or aluminum belly pan with a minimum 2 inch vertical lip.

ENGINE SETBACK: Maximum of 10% of total vehicle wheel base as measured from the centerline of the forward front spindle to center of front spark plug hole.

EXHAUST: Automotive type system designed specifically for racing required. Exhaust gasses must be directed out of the body towards the rear of vehicle and away from the driver and fuel system.

HARMONIC BALANCER: SFI 18.1 certification required.

FLYWHEEL SHIELD: SFI 6.2 or 6.3 certification required.

FUEL: Alcohol, gasoline and methanol allowed. The use of nitromethane and/or propylene oxide is strictly prohibited.

FUEL SYSTEM: Fuel cell must have pressure cap and be vented to outside of body. Fuel cell meeting SFI Spec 28.1 mounted in front of radiator permitted; must be mounted between framersails and enclosed in a round tube frame, minimum 1 1/4-inch O.D. x .065-inch chromoly tubing. Extra tank(s) prohibited. Artificial cooling or heating systems (i.e., cool cans, ice, Freon, etc.) prohibited. Circulating systems, not part of normal fuel-pump system, prohibited.

IGNITION: Maximum one magneto or distributor, maximum one spark plug per cylinder. Magneto systems are limited to a single 44-amp maximum output system. The use of MSD 8973 unit is permitted on supercharged and turbocharged entries. The use of MSD 7531 unit is permitted on nitrous-assisted entries. Electronic starting line rpm limiters (two-steps) are permitted on all entries.

INDUCTION: Any induction system permitted on nitrous-assisted, supercharged and turbocharged entries. Electronic fuel injection must be closed, OEM-type system; i.e., may monitor only engine functions. Monitoring of vehicle performance criteria, wheel speed, driveshaft speed, vehicle acceleration, etc. by fuel-injection system prohibited.

INJECTOR SCOOP: Injector scoop may not extend more than 16 inches forward of the center of the forward engine cylinder, may not extend more than 10 inches behind the center of the rear engine cylinder.

INTAKE MANIFOLD: An ADRL accepted burst panel is required on all vehicles.

NITROUS OXIDE: Prohibited on Turbo and Supercharged entries. HOBBS switch required. System must be activated by wide open throttle switch. Maximum of two bottles stamped with a DOT-1800 pound minimum rating.

OIL LINES: All pressurized flexible oil lines must pass a minimum 750 psi 30 second test and be tagged to indicate successful testing.

REAR END: Aftermarket axles with minimum 5/8-inch-diameter studs and axle-retention device mandatory. **Full-floating or live axle units required.** Maximum numeric rear-end gear ratio 4.57-to-1 for supercharged and turbocharged entries.

STARTER: Required. All entries must be self-starting. On board starter required. The use of remote-mounted battery packs permitted for starting purposes only. No push starts allowed.

SUPERCHARGER: Screw-type supercharger prohibited. Hi-helix or standard helix Roots type supercharger only. Manifold burst panel meeting SFI Spec 23.1 plus restraint system meeting SFI Spec 14.2, including injector restraint straps mandatory. Maximum supercharger overdrive limit is 14.55 percent on all combinations. Intercoolers, variable multi-speed supercharger devices prohibited. The top opening may not exceed 12 inches in length or 5 inches in width. The entire inlet opening must be on/in the upper surface only. The maximum length from the front of the supercharger drive pulley to the leading edge of the rotor is 15 inches. Offset drive pulleys, spacers, modified cases, or attaching methods may not be used to add to the 15-inch maximum. The rotors must be driven from the front (both the external drive and the internal gearing. Any inlet/outlet cavity in front of the rotors is restricted to a maximum of 3.000 inches measuring from the face of the bearing plate to the front of the cavity. Roots Type: Maximum size: 14-71, 22 1/4-inch case length, 11 1/4- inch case width, 19-inch rotor length; maximum rotor diameter:5.840 inches including fixed stripping. The case must be one piece with removable front and rear bearing end plates; rotor must be contained within one-piece case. Roots-type high helix: Must adhere to same maximum case dimensions and maximum rotor cavity diameter as standard Roots. Rotor helix angle may not exceed 6.5 degrees per inch (123.5 degrees total over 19-inch maximum rotor length).

THROTTLE: Throttle control must be manually operated by driver's foot. Electronics, pneumatics, or hydraulics is permitted for starting line/staging rpm limiters only.

TURBOCHARGER: Single turbocharger limited to 120mm maximum; twin turbocharger limited to 88mm maximum. Air-to-air or water-to-air intercoolers permitted on turbocharged vehicles. Turbocharger size will be verified by measuring the housing bore at the leading edge of the impeller wheel. The maximum diameter of the housing bore at the leading edge of the wheel may not exceed 2mm more than the maximum allowable turbocharger size permitted.

TRANSMISSION: Aftermarket planetary, clutchless, or ADRL-accepted aftermarket automatic transmission permitted. All transmissions must be equipped with an SFI Spec 4.1 transmission shield. Supercharged entries limited to maximum of three forward speeds and reverse; all other entries limited to maximum of five forward speeds and reverse. **When an aftermarket automatic transmission is utilized, an SFI Spec 6.3 flexplate shield and an SFI Spec 29.1 flexplate are required. Aftermarket converter drive units permitted. When an aftermarket converter drive is utilized, a 6.3 flywheel shield and an SFI Spec 29.1 flexplate are required (SFI 29.2 recommended).** All entries utilizing a converter must be equipped with a neutral safety switch and a reverse lock out. Transmission brake permitted on all converter equipped entries. Lockup converters and overdrive units are prohibited. A 1-to-1 relationship is mandatory in high gear for all transmission types. Automated, electric, or pneumatic shifting devices permitted on all transmission types; must be controlled by preset engine rpm and/or time functions only.

MISCELLANEOUS

CREDENTIALS: A valid ADRL membership and competition license is required. Valid IHRA and/or NHRA competition licenses may be transferred when presented with a current physical.

COMPUTER / DATA ACQUISITION: Allowed, must be standalone and used for information gathering only.

STARTING LINE ENGINE CONTROL DEVICES: Allowed.

TOW VEHICLES: Allowed. A valid driver's license is required to operate any type of tow vehicle. All passengers must be seated inside of vehicle with all doors closed. Riding in open hatchback, trunk or cargo area not allowed. ATV's are allowed with a maximum of one passenger who must be seated at all times. Golf carts are allowed with a maximum of three passengers who must be seated at all times. Posted pit speeds must be obeyed at all times. If pit speed is not posted, maximum pit speed will be 10 mph.

SAFETY EQUIPMENT

DRIVER RESTRAINT SYSTEM: SFI 16.1 certification required. (7 point system) recommended

ENGINE CONTAINMENT SYSTEM: ADRL accepted lower engine containment system required. The system must include the oil pump and related components and be a minimum of 3" above ground.

FIRE SYSTEM: SFI 17.1 system required. System must contain a minimum of 20 lbs of fluid or gas fire suppression agent. One nozzle required inside driver's compartment must be directed at driver's feet. Two or more nozzles must be directed at front of engine and fuel cell. **All fire suppression must be released with a single actuation. (i.e. single handle, button or lever)**

HEAD AND NECK RESTRAINT: SFI 38.1 required. An aluminum skid plate located above driver's head is recommended.

HELMET: SN-2000 or newer of SFI 31.2 or 41.2 required. Use of open face helmet prohibited. EjectHelmet Removal System (Part # SDR 890-01-30) or equivalent recommended

MASTER ELECTRICAL CUTOFF: Required. Must be clearly labeled "PUSH OFF".

PARACHUTES: Dual parachutes required. Separate shroud-line mounting points with 1/2" sleeved grade 8 bolts required.

PROTECTIVE CLOTHING: A driver's suit meeting SFI 3.2A/15, gloves meeting SFI 3.3/15, shoes meeting SFI 3.3/15 required for Nitrous and Gasoline burning Turbocharged entries. A driver's suit meeting SFI 3.2A/20, gloves meeting SFI 3.3/20, shoes meeting SFI 3.3/20 required for Supercharged and Methanol burning Turbocharged entries. A head sock meeting SFI 3.3 is required unless a helmet manufactured with a skirt meeting SFI 3.3 is used.

RF SHUTDOWN RECEIVER: Properly functioning Electrimotion shutoff device (part numbers SB001 and RF001) required.

ROLL BAR PADDING: SFI 45.1 required.

TRANSMISSION: All transmissions must be covered by a one piece SFI 4.1 restraint.

UPHOLSTERY: Driver's seat foamed with energy absorbing material, formed for the driver and covered with flame retardant material is required. Lateral helmet supports required

WINDOW NET: SFI 27.1 required.